

Clean Version of Amended Claims Pursuant to 37 C.F.R. 1.121

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1. (Amended) A coplanar line comprising:

a first layer, of a multi-layered stack, of dielectric material;

a second layer, of a multi-layered stack, of dielectric material, having a dielectric constant less than 30, positioned adjacent to said first layer of dielectric material, said second layer of dielectric material having a dielectric constant that is less than the dielectric constant of said first layer of dielectric material;

first and second electrodes for applying a controllable voltage across said first dielectric material, thereby controlling a dielectric constant of said first dielectric material, wherein at least one of said first and second electrodes is positioned between said first and second layers of dielectric material;

a conductor positioned adjacent to a first edge of each of said first and second layers; and

first and second ground planes positioned on opposite ends of said conductor.

2. (Amended) A coplanar line as recited in claim 1, further comprising:

means for applying a controllable voltage across said second dielectric material, thereby controlling the dielectric constant of said second dielectric material.

3. (Amended) A coplanar line as recited in claim 1, further comprising:

a plurality of additional layers of dielectric material positioned substantially parallel to said first and second layers of dielectric material, said additional layers of

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dielectric material can include at least one layer having a tunable dielectric constant.

4. (Amended) A coplanar line as recited in claim 3, wherein said first, second and additional layers of dielectric material are assembled into a plurality of subassemblies, said subassemblies having the same arrangement of dielectric materials.

5. A coplanar line as recited in claim 1, wherein said first layer of dielectric material has dielectric constant greater than about 100 and a loss tangent of less than about 0.01.

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6. (Amended) A coplanar line as recited in claim 1, wherein said second layer of dielectric material is selected from the group consisting of a $Ba_{1-x}Sr_xTiO_3$ composite where x ranges from zero to one, alumina, mica, and air.

7. (Amended) A coplanar line as recited in claim 1, wherein said first and second layers of dielectric material is selected from the group consisting of bulk, tape, thick film and thin film layers.

8. (Amended) A coplanar line as recited in claim 1, wherein said first and second layers of dielectric material each have a thickness less than about one tenth of the wavelength of a radio frequency signal to be transmitted through the coplanar line.

9. (Amended) A coplanar line as recited in claim 1, wherein said first layer of dielectric material is selected from the group consisting of BSTO, BSTO-MgO, BSTO-MgAl₂O₄, BSTO-CaTiO₃, BSTO-MgTiO₃ and BSTO-MgSrZrTiO₆.